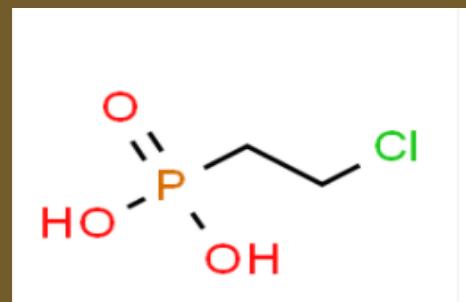
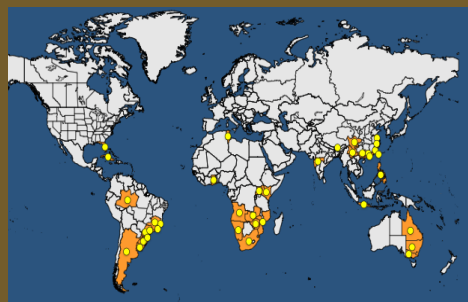


Sampling and analysis of asymptomatic *Citrus* fruits and leaf litter to detect the infection of *Phyllosticta citricarpa* (CBS-DETECT)



Funding

Non-competitive funding mechanism. Each funder only pays for the participation of their own national researchers. Total funding € 70 000

Research consortium

CREA (IT), ANSES (FR), BPI (GR), INIAV (PT), IVIA (ES), NIB (SI), ISA-CM (TN), APTA (BR), EFSA (INT), EPPO (INT)

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Goals

Phyllosticta citricarpa (CBS) has recently been reported in leaf litter in some EU citrus-growing countries although CBS symptoms were not observed on tree canopy. Recently, the pathogen has been reported for the first time in Tunisia. In Argentina and Brazil, exporters perform ethephon treatment to enhance symptom expression on fruits in order to avoid that asymptomatic CBS-infected fruits will be rejected upon arrival in Europe. Such treatment could be envisaged for fruits harvested in European citrus orchards. However, concerns have been raised on its efficacy. The aim of the project is to prevent the introduction of CBS in EPPO citrus producing countries and support monitoring programmes

Objectives

The project will focus on the following activities:

- Evaluation of methods, such as the ethephon treatment (Baldassari *et al.*, 2007) or other methods (ie. Meyer *et al.*, 2012), that stimulate the early development of CBS symptoms and the production of *P. citricarpa* (and *P. paracitricarpa*) pycnidia on infected citrus fruit and/or leaves;
- Evaluation of the currently available DNA extraction methods from citrus matter and of the newly developed test to detect and identify *P. citricarpa* on asymptomatic infected citrus tissues and to discriminate it from the close-related *P. paracitricarpa*; the task will also include validation of the above-mentioned tests through a test performance study;
- Development of a sampling strategy to be used for the detection of *P. citricarpa* on asymptomatic infected citrus tissues both in the field and at the entry points.

Key outputs and results

- Methods to stimulate early development of symptoms caused by *P. citricarpa* (and *P. paracitricarpa*), on asymptomatic infected fruit and leaf tissues;
- Validated molecular methods to identify *P. citricarpa* in asymptomatic fruit and leaf tissues;
- Protocols for the detection of *P. citricarpa* on asymptomatic citrus matter including sampling strategy.